

REMARKS

By this Amendment, claims 19, 20-24, and 27-30 and the specification are revised. Prompt and favorable action on the merits is respectfully requested.

First, the translation of the PCT application included an error, which is corrected in the specification and claims 19 and 27. That is, the Spanish term “colorant dispersos” was incorrectly translated as “coloring agent”. The correct translation of “colorant dispersos” is “disperse dye”. This is supported by the attached Webster On-Line Dictionary, as well as the attached “Diccionario Politécnico de las Lenguas Española e Inglesa”. Therefore, the changes to claims 19 and 27 as well as the specification do not introduce new matter.

In response to the inquiry regarding the viscosity measurement, the specification is revised to indicate that the measurement is at 25 °C or room temperature. Since this is a typical temperature for measuring the viscosity of inks, revising the claims and specification in this regard does not raise any issues of new matter.

Turning now to the prior art rejection, it is submitted that the prior art relied upon by the Examiner does not establish a *prima facie* case of anticipation or obviousness. The basis for this traverse is set out below under the headings of the applied prior art.

United States Patent No. 5,275,646 to Marshall et al. (Marshall)

In rejecting claims 19-30, the Examiner contends that Marshall teaches all of the claimed steps of the invention. A close review of the method employed in Marshall reveals that the claimed method is not taught or suggested and this reference cannot be said to anticipate claims 19 and 27.

In review, claim 19 defines steps wherein a first mixture is made of the dispersing dyes and a mixture of oligomers and monomers. This mixture is then combined with a second mixture of monofunctional and multifunctional acrylic monomers until a particular viscosity is reached.

The resulting mixture is then combined with a photoinitiator system, which causes the polymerization of the oligomers and monomers in the presence of radiation.

This sequence of steps is not found in Marshall and claim 19 cannot be anticipated for this reason. Marshall, in Example 1, starts with a first mixture which is monomers, a polar conductive material and a photoinitiator. A second mixture is made separately, which is a combination of pigment, monomers, and polymers, and this second mixture is milled to a particle size of less than 1 micron. These two mixtures are then combined and filtered. Quite clearly, the two mixtures of Marshall are not even remotely similar to the two mixtures of claim 19. For example, according to the invention, the photoinitiator is added after creation of the two mixtures, whereas Marshall includes it as part of the first mixture. This alone means that Marshall does not teach the steps of claim 19 and cannot be cited in an anticipatory manner.

Marshall is also distinguishable from claim 19 in its failure to teach the dispersing dye-containing mixture. As mentioned in the instant specification, using dispersing dyes permits the ink to be useful in high transfer temperature applications, see page 5, line 22 et seq., which is nowhere to be found in Marshall.

The pigments of Marshall cannot be considered to be the same as the claimed dispersing dyes since pigments have less viscosity and a dispersing dye is considered a crystal in contrast to the inert mineral salt characterization associated with pigments.

Marshall also fails to suggest the mixture of oligomers and monomers with the dispersing dyes. Marshall states in col. 4, lines 39-42, "The colorant may be presented in dispersion, if necessary in the form of particles coated with a material, e.g., polymer, that is compatible with the liquid phase components." This cannot be construed to teach the claimed method and the failure of Marshall to teach the mixture using monomers and oligomers is another reason why the rejection based on 35 U.S.C. § 102(b) is improper and should be withdrawn.

Since Marshall cannot be said to anticipate claim 19, the Examiner can only rely on 35 U.S.C. § 103(a) to further reject this claim. However, there is no basis whatsoever to conclude that the method of claim 19 could be derived from the teachings of Marshall. To formulate such a rejection would be the impermissible use of hindsight, and such a rejection could not be sustained on appeal.

Claim 27 is patentable over Marshall for the reason that it defines a product that is produced according to the method of claim 1. This method includes the use of dispersing dyes and oligomers, which are not found in Marshall, and the thus-produced product could not be the same as the ink composition of Marshall.

Moreover, Applicants submit that the processing differences between the invention and Marshall produce two different ink compositions, such that the ink of claim 27 cannot be considered to be the same as that produced by Marshall. Therefore, claim 27 is separately patentable over Marshall.

The claims dependent from claims 19 and 27 are patentable by reason of their dependency.

United States Patent No. 6,593,390 to Johnson

Turning now to the rejection of claims 27-30, the Examiner cites Johnson as teaching an ink having the claimed viscosity, colorant, particle size and the claimed acrylic compounds.

Applicants submit that Johnson cannot anticipate claim 27 for the reason that Johnson does not disclose an ink composition that uses dispersing dyes as is now claimed. As noted above and explained in the instant application, the use of dispersing dyes permits the use of the inventive ink jet ink at high temperatures.

Since Johnson does not disclose an ink containing dispersing dyes as claimed, the Examiner must resort to an obviousness approach to continue to reject the claims. However, there is no basis to conclude that it would be obvious to use dispersing dyes in Johnson. In fact, Johnson teaches away from high temperature applications in col. 8, lines 12-14, wherein it is stated, "... although in general they may not be suitable for use in apparatus which employs thermal means of droplet generation." What this means is that there is no recognition of a high temperature application in Johnson, so that there is no way that Johnson could even think about the selection of a dispersing dye as part of the ink composition.

Claim 27 is also distinguishable on the grounds that the ink composition is produced by an entirely different process, and this difference in processing produces ink composition attributes that cannot be said to exist in Johnson. Referring to Example 1 of Johnson, col. 8, line 60+, the colorant ground with the appropriate amount of hydradispersant is mixed with a mixture of monomers and oligomers. A photoinitiator is added and finally silicone polyether acrylate (optional) is added. Put another way. the oligomer (in mixture with the monomers) is added to a mixture of the colorant and hydradispersant. This is completely different from the

process of claim 19, which is incorporated into claim 27, wherein the dispersing dyes are combined with the oligomers and monomers, and this mixture is combined with the monofunctional and multifunctional acrylic monomer mixture, with the photoinitiator added to the combined mixtures. This radical difference in processing is sufficient to rebut any allegation that Johnson produces the same ink composition as recited in claim 27.

Lacking a basis to reject claim 27 under 35 U.S.C. § 102, the Examiner can only rely on 35 U.S.C. § 103(a) to continue to reject claim 27 based on Johnson. Such an approach cannot succeed since there is no factual basis from which to base an obviousness contention. Any further rejection of this nature would be the impermissible use of hindsight, and such an approach could not be sustained on appeal.

Claims 28-30 are also distinguishable over Johnson based on their claim dependency.

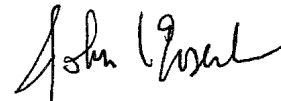
CONCLUSION

The rejection based on Marshall and 35 U.S.C. § 102(b) is flawed since Marshall does not teach the processing steps of claim 19 or claim 27 or the ink composition produced by such steps. Moreover, there is no basis from which the Examiner could allege that Marshall could somehow obviate the invention of claims 19 and 27. Similarly, Johnson cannot be said to anticipate claim 27 since Johnson does not disclose all of components of the claimed ink composition. In addition, the vast difference in the processing between the invention and Johnson rebuts any contention that the Johnson ink composition can be considered to be the same as that claimed.

Accordingly, the Examiner is requested to examine this application in light of this response and pass all pending claims onto issuance.

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